

# Research in Problems of Resources

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THE TERM "RESOURCES" as interpreted in the present article is concerned essentially with research materials in university, reference, and specialized libraries, rather than collections of general cultural and informational content, such as one would find in a typical public library, or the books required for college instruction at the undergraduate level. Even with this limitation, the subject branches in many directions. It is directly related, for example, to various phases of interlibrary cooperation, union catalogs, union lists, bibliographical centers, storage centers, specialization of fields, microreproduction projects, regional planning, abstracting and indexing, evaluative studies of resources, and the several types of exchanges among libraries. In virtually every aspect, further studies and investigations are urgently needed.

In any consideration of American library resources, a basic factor is the extent of international publishing. Pioneer studies in this area were undertaken by M. B. Iwinski in 1908<sup>1</sup> and L. C. Merritt in 1941.<sup>2</sup> Iwinski estimated that world book production through 1908 amounted to 10,378,365 titles, while Merritt calculated that by the end of 1940 the total had risen to 15,377,276. In each case, however, there were unavoidable gaps in the figures due to lack of data. During the thirty-two years from 1908 to 1940, there was an annual world book production of 156,216 titles, according to Merritt. A more recent survey was done by R. E. Barker, under Unesco auspices.<sup>3</sup> Counting book production in sixty countries and using the latest figures procurable (in most instances 1953 or 1954), Barker concluded that the rate of publishing had risen to 240,000 titles annually, though again data were not available from a few nations.

Examining these figures, a number of questions arise. As of 1940, Merritt estimated that about two-thirds of the world's book output since the beginning of printing was to be found in the United States. Has the proportion risen appreciably since, with the aid of the Farmington Plan, U. S. Book Exchange, and other forms of cooperative

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acquisition? Another pertinent query: What is a book? Barker reported an annual total of 11,900 titles for the United States and 37,500 for the Soviet Union, though it is obvious that the Russian definition of a book is far different from the American,<sup>4</sup> and other differences are discernible from one country to another.

Establishment of the Farmington Plan, by the Association of Research Libraries, about ten years ago marked the first nation-wide effort to cover comprehensively monographic publications of the world. The program's objective is "to make sure that at least one copy of each new foreign book and pamphlet that might reasonably be expected to interest a research worker in the United States will be acquired by an American library, promptly listed in the Union Catalogue at the Library of Congress, and made available by interlibrary loan or photographic reproduction."<sup>5</sup> On the basis of a decade's experience, both quantitative and qualitative studies are needed of the Farmington Plan's operations. In the view of some participants, the present coverage is inadequate and American libraries are failing to receive many significant books published abroad. Other critics maintain that too much material of low quality, without value to the scholar or research worker, is coming in to the country through the Plan. What are the facts?

When one enters the field of serials and government publications, complexities increase. In the field of science alone, an authoritative estimate is that more than 50,000 periodicals are being published currently. What percentage is being received by some American library, and what is the nature of those lacking? The first systematic attempt at complete coverage for a single area is being made by the Midwest Inter-Library Center. The center is setting out to procure all titles recorded in *Chemical Abstracts* not to be found in any of its member libraries. To cover the bibliographical universe in the same fashion would certainly be a large and expensive undertaking. A limited approach has been made by the Farmington Plan for new periodicals only. But are the lacunae really significant? How feasible would be a comprehensive Farmington Plan for serial literature?

Similar questions arise in the immense field of government publications, one of the most basic bodies of material in a research library. The flood of publications issuing from international, national, provincial, state, municipal, and other governmental units around the world is enough to inundate even the largest libraries. How completely are these materials recorded bibliographically? What proportion is being acquired in the United States? How feasible are cooperative acqui-

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sition arrangements, perhaps directed or assisted by our Federal Government? While American and British documents are familiar to librarians in the United States, some subject analyses of the contents of publications of other nations, particularly those of non-English speaking and minor states, would be of value as a guide to library acquisition policies.

Cooperative acquisition ordinarily involves the principle of specialization of collections or division of fields. Theoretically, at least, subject specialization among libraries offers one of the most fruitful and promising devices for promoting successful library cooperation. For the past 40 or 50 years, leading American librarians have advocated specialization among regions and fields. They have recognized the serious problems created for libraries by the tremendous increase in publication of books, government documents, periodicals, and other library materials, and the trend toward minute divisions of large fields and extreme specialization of subjects. Confronted by these conditions, it is obvious that the goal of completeness in any single library must be abandoned. No library ever possessed all the books in existence and any library in the future trying to reach that mirage is doomed to failure. The most logical alternative would appear to be divisions of fields among libraries. A few notable examples of such agreements can be cited: the Cooperative Acquisitions Project for European War-time Publications, sponsored by the Library of Congress and the Association of Research Libraries shortly after the end of the second World War; the Farmington Plan which assigns books published abroad to about sixty libraries by subject categories; agreements between individual institutions, such as John Crerar—Newberry, Columbia—New York Public Library, Library of Congress—Department of Agriculture—National Library of Medicine, and Duke—North Carolina.

Nevertheless, the theory of specialization appears more popular than the practice. What are some of the factors that have retarded or blocked greater activity in specialization programs: institutional jealousies and rivalries; opposition of scholars to any division of library resources, lack of economic pressures, changing research interests (especially in universities), distances between libraries? Further investigations are called for, both of existing agreements and proposals for action, to discover what are the elements that make for failure or success in this important phase of the development of library resources.

Another major form of library cooperation is bibliographical centers

and union catalogs. Any program of national bibliographical control must rest primarily on these agencies.

Heading the system of union catalogs in the United States is the National Union Catalog in the Library of Congress. Though established in 1901, the Catalog still falls considerably short of its goal of a complete record of all titles in American libraries. According to a recent report, however, the Catalog is able to locate in some library at least one copy of seventy-nine per cent of the titles for which it is asked to search. (It is of interest to note that the Canadian National Library through its National Union Catalogue was able to locate seventy-four per cent of titles requested in 1955-56.) The inauguration on January 1, 1956, of a plan to list locations for current imprints in the published *National Union Catalog* should insure a virtually complete record of post-1955 publications. A well-organized and systematic approach by regions is being made, enlisting the cooperation of all types of libraries likely to have materials worth reporting.

Numerous problems still confront the National Union Catalog, requiring further study and research for solutions. For example, assuming that new imprints are being covered satisfactorily, how can the older file, now containing about 13,500,000 cards, be made more widely available: through publication, microreproduction, or other device? What would be the most effective and efficient methods to bring in to the National Union Catalog a listing of the several million titles, not now represented, which sampling techniques have shown are held by American libraries? What is the nature of the twenty-one per cent of titles which the Catalog is presently unable to locate?

Like the National Catalog, the primary concern of regional union catalogs and bibliographical centers is the location of books, but in some instances, e.g., the Rocky Mountain Bibliographical Center and the Pacific Northwest Bibliographic Center, they perform a variety of added functions, such as taking the lead in regional cooperative projects, the development of specialization agreements and coordinated acquisitions among libraries of the area, aid to individual libraries in cataloging and classification, serving as clearinghouses for interlibrary loans, and the preparation of subject bibliographies.

Regional union catalogs have strong opponents and supporters. Their critics maintain that they are uneconomical and their continuation would be unnecessary if the National Catalog were properly completed. It is suggested further that the rapidity of modern means of communication—telephone, telegraph, teletype, air mail, and perhaps soon, facsimile transmission—makes unjustifiable the expense of main-

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taining a decentralized system of union catalogs, and points to the desirability of having one big catalog, as complete as possible, for the entire country. Apparently equally valid arguments are offered in support of the regional plan. Among others, it is claimed that the regional centers are providing a wider range of services than the National Catalog; the National Catalog could not afford to take over all the bibliographical services which regional centers render locally; and the decentralized arrangement gives impetus to extensive cooperation among libraries in the regions where the centers are located—a stimulus that would not be felt from a remote national organization.

If the national versus regional union catalog debate is to be based on facts rather than theories, here are a few aspects that appear to call for investigation: (a) What services performed by a local or regional union catalog cannot or are unlikely to be provided by the National Union Catalog? (b) How important is the factor of size of libraries in relation to the need for a regional bibliographic center, e.g., do such centers play less significant roles as the individual libraries they serve increase in size and achieve greater bibliographical self-sufficiency? (c) Is the expense of operation and maintenance of the regional center, perhaps in terms of unit cost per item of service, excessive, making it an uneconomic enterprise? (d) What bearing do distances between libraries, transportation facilities, and means of communication have on the effectiveness and need for regional centers? (e) What proportion of books requested by scholars, research workers, and students can be located within a given region, to that extent rendering the area independent, and relieving libraries elsewhere of a heavy burden of interlibrary loans?

Related to union catalogs and their problems are union lists, one of the most popular forms of library cooperation. Union lists deal principally with periodicals, but there are hundreds of examples concerned with newspapers, rare books, government publications, maps, and other types of material. Here, again, the question of national as opposed to local or regional coverage emerges. Many published union lists are highly specialized, often confined to a minute field. They may be issued in small editions, sometimes buried in journals of limited circulation, and therefore likely to be overlooked. Works of national scope, on the other hand, e.g., the *Union List of Serials in Libraries of the United States and Canada*, are expensive to compile and publish. Furthermore, they date rapidly after publication. Hence, one of the most pressing issues before the research libraries of the country is discovering ways and means of keeping such compilations as the

national *Union List of Serials* up to date, without prohibitive cost, and of having new editions frequently available. Has the Library of Congress' *New Serial Titles* found the answer, at least for recent acquisitions?

Analogous in some respects to bibliographical centers is the regional storage center, a type of library cooperation much in the limelight in recent years. The three principal examples available for study—the New England Deposit Library, Midwest Inter-Library Center, and Hampshire Interlibrary Center—exhibit wide variations in organization, objectives, geographical coverage, and other features. While all are concerned primarily with little-used materials, approaches to the problem differ from one to another. The pioneer center, the New England Deposit Library, may be described as having a passive policy. It is entirely a storage operation, with each participating library's books shelved separately, no attempt to eliminate duplicates, and no independent or separate acquisition program. The member institutions are all in the Boston-Cambridge area, and each pays rental charges in proportion to the amount of space used.

In contrast, the eighteen members of the Midwest Inter-Library Center are scattered over nine states, individual ownership of materials deposited is relinquished, duplicates are weeded out, and an active acquisition program is carried on through purchase or other arrangements. Financial support for the Center is provided by membership assessments, varied according to a special dues formula.

The third and smallest, the Hampshire Interlibrary Center at South Hadley, Massachusetts, was established by three college libraries—Mount Holyoke, Smith, and Amherst. A fourth member, the University of Massachusetts, has since been added. These institutions pool their research collections in the Mount Holyoke College Library, sell their duplicates, and use the proceeds to acquire works of research importance not held by any of the member libraries. The similarity of their interests, their comparable size, and their geographic nearness to one another are factors believed to have contributed to the Center's success.

Assuming that storage centers are a desirable development and help to strengthen library resources, perhaps the first matter on which research is needed is the nature of collections to be placed in such centers. What are little-used materials? The Midwest Center has chosen to concentrate on textbooks, college catalogs, state and foreign government publications, foreign dissertations, foreign newspapers, directories, book dealers' catalogs, and house organs. Are there other types

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of material or perhaps subject categories as infrequently consulted? From a cost standpoint, would it be more economical to microfilm and discard rather than to store the originals of seldom-used materials? On this point, the poor-quality paper on which many of the publications are printed ought to be taken into consideration. Also bearing on the matter is the problem of book obsolescence, and a continuation of C. F. Gosnell's researches in this area might be rewarding.<sup>6</sup>

A question that often recurs in discussions of storage centers is the extent of use. By definition, materials held by the centers are little used. Is it fair and reasonable, therefore, to apply the criterion of use in judging the value of these centers? It may be argued that their chief purposes are to provide comprehensive groups of certain types of material, and to furnish more economical storage space. On the other hand, if statistics of use fall to ridiculously low figures in relation to budgets for maintenance, it may be questioned whether the operation is a sound business enterprise. Studies of the nature of the use and of the users might reveal significant data, perhaps indicating that quality is compensating for lack of quantity.

Financial support is a perplexing problem for both storage and bibliographical centers. The usual pattern, regardless of how the formulas for dues or assessments are arrived at, is for the larger and wealthier institutions to carry a major share of the burden, presumably a kind of "service basis" *à la* H. W. Wilson. It could be maintained, however, that the smaller institutions gain more from the centers than do the large ones, with their strong local library resources. Can any scheme of financial support be devised that will be equitable for everyone concerned, and at the same time assure adequate maintenance?

A final question, doubtless most fundamental of all, is this: Would it not be feasible, through inter-institutional agreements, specialization, or division of fields among libraries, to accomplish everything being done by storage centers? A centralized organization, for overall direction, might still be essential, but storage would be decentralized, leaving the materials closer to the scholars and students most likely to need them. The Midwest Center has experimented to a limited degree with this idea, but fuller exploration would be highly desirable.

The regional approach to the study and development of library resources has proved fruitful. Because of the wide geographical sweep of the United States, the uneven distribution of library resources, and the varying characteristics of the principal regions, cooperative pro-

grams can frequently be managed more effectively on a regional than on a national basis. Here is a *raison d'être* for such organizations as the Pacific Northwest Bibliographic Center, the Rocky Mountain Bibliographical Center for Research, the Southeastern Interlibrary Research Facility, and the Philadelphia Bibliographical Center. Each has been concerned to a greater or lesser extent with the historical, geographic, economic, educational, and social aspects of the area in which it is located. In the South, close liaison has occurred between library and other educational interests through the Southern Regional Education Board, which works closely with the Southeastern Association of Research Libraries and the Southeastern Interlibrary Research Facility in the promotion of regional library projects. Significant progress has also been made in the growth of university centers, e.g., Chapel Hill-Durham, North Carolina; Nashville, Tennessee; Atlanta-Athens, Georgia; and Baton Rouge-New Orleans, Louisiana.<sup>7</sup>

A diversity of research studies on regional problems could be suggested. What are some of the background reasons for striking inequalities in the distribution of American library resources? To what extent do the library holdings of different regions duplicate each other and to what degree are they distinctive? What types of library materials, e.g., newspapers, most readily lend themselves to regional or state, rather than national, projects for cooperative collecting? At what stage in the growth of the libraries of a region do the advantages of cooperative storage appear worthy of exploration? Since inadequate financial support is usually the most pressing problem in underdeveloped areas of the country, what sources of funds may be available for stronger support, and in what ways might any additional funds be used for the greatest benefit of all libraries in a region?

Surveys of library resources have multiplied in recent years. Their scope has ranged from descriptions of the holdings of single institutions to cities, states, regions, and, in a few instances, the entire country.<sup>8-11</sup> Furthermore, the thoroughness, the amount of detail, the background of surveyors, care in planning, form and arrangement of data, and other features differ considerably from one study to another. Because some have been sketchy, incomplete, and not well organized for use, doubts have been expressed as to the value of resources surveys. Among the purposes they are designed to serve are to aid the research worker in locating materials which he might otherwise overlook or find with difficulty, to give leads for inter-library loan inquiries, and to furnish a basis for cooperative planning, such as divisions of collecting interests.



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Techniques for describing and evaluating library facilities on the research level are still experimental. No generally accepted standards have been established. Even when dealing with a reasonably well-defined field, the problem of achieving clear descriptions is extremely difficult. Some persons would hold that only the subject specialist is qualified to evaluate a research collection, and the job should therefore not be attempted by the librarian with general training. Others suggest that the specialist's point of view is too narrow, and should be combined with the librarian's broader knowledge of the library's total resources. Likewise, it is argued that surveys ought to be restricted to relatively minute subject areas, with detailed analyses, rather than being inclusive of a library's resources as a whole. Exactly what types of data will be most helpful to the scholar and student are also matters of dispute.

Confronted by these uncertainties, planners of surveys need answers to such questions as the following: (a) What are the specific values of a resources survey that justify the time, effort, and expense it requires? (b) Who is best qualified to study a library's resources: the specialist or the generalist, or a combination of the two? (c) What details in the description and evaluation of a collection are most useful to the scholar and research worker? (d) What form and arrangement of a survey report are most helpful and preferred by users? (e) Are surveys, especially of groups of libraries, best confined to special collections and areas of concentration instead of over-all resources? (f) Are sampling techniques in measuring the strength of library holdings and in comparing libraries with each other useful, and if worth-while how can an accurate sample be constructed?

Related to the problem of describing library resources is the question of statistics of holdings.<sup>12</sup> The number of items or the quantity of material is a useful measuring stick and is frequently an accurate indication of a library's effectiveness. Unfortunately, there is little uniformity at present in the methods used for measuring library holdings. Ways and means of standardizing practices have received the attention of various organizations, but thus far their recommendations have not been effective. As previously indicated, there is even less uniformity in figures for national book production from one country to another. Among the matters not yet satisfactorily resolved are a generally acceptable definition of a volume, the difference between a pamphlet and a volume, and the most accurate scheme for measuring the extent of library holdings, e.g., physical volume count, bibliographical unit count, or linear feet of shelving occupied.

Library resources have been considerably augmented and enriched in recent years by numerous photo-reproduction projects.<sup>13</sup> Large quantities of printed and manuscript materials have been reduced from their normal proportions to miniature forms, saving fragile records from loss, rescuing war-endangered materials, increasing the availability of rare books, saving storage space, and serving occasionally for original publication.

As microreproduction has answered some of the problems of research libraries, it has created others. For example, librarians want to know how permanent are the new media. If they put their trust in microreproductions, what assurance do they have that film will not deteriorate, images fade out, leaving their collections worthless after a short period, while the originals may have been discarded? Even for newly-made photo-copies, complaints of illegibility are frequent. Obviously, high technical standards should be the first desideratum. Further, assuming that no single medium will win out over its rivals and drive them from the field, what are the comparative advantages and disadvantages of the three principal forms: microfilm, microcards, and microprint? For what types of material is each best adapted, how do they compare in cost, in ease of storage, in convenience of use, in technical quality?

Among some scholars, a strong prejudice exists against any form of reproduction as a substitute for the original document. To what degree is such feeling based on sound reasons, e.g., the need for originals in certain textual and bibliographic studies of rare and early-printed books?<sup>14</sup> There are some physical and psychological barriers to the use of microreproductions, such as eyestrain. Are these capable of solution?

Previous reference has been made to the dilemma of American research libraries in attempting reasonably complete acquisition of the world's periodical literature, and in maintaining up-to-date union lists or other records of locations. The dimensions of the field are indicated by the fact that the two largest libraries in the country, the Library of Congress and Harvard University, report that three-fourths of their annual intake is serial in form. The great publishing phenomenon of the twentieth century is the increasing dominance of the periodical as opposed to other forms of publication. The learned and technical journals, transactions of academies, societies, museums, observatories, universities, and institutions of all varieties, and the serial publications of governments require an increasing proportion of library funds, space, and attention.

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On the acquisition end, further studies, such as C. H. Brown's,<sup>15</sup> are needed to aid in the selection process. Investigations would also be desirable of the effectiveness and efficiency of the world-wide system of exchanges of serial literature being carried on by universities, learned societies, and other organizations.

Of most direct concern to scholars and students is the problem of finding and keeping in touch with the mounting flood of references in every major field. Abstracting and indexing coverage in some areas is excellent; in others, sketchy or lacking. Even where indexing is thorough, it may not meet the demand for quicker access to information—hence all the current excitement concerning mechanical and electronic devices, systems for "information retrieval," facsimile transmission schemes, and similar inventions for bringing bibliography in an age of science under control. The experimentation and research in progress in this area is too new for evaluation, but is potentially of great future significance.

Certain aspects of acquisition work for research libraries have been touched upon in the foregoing discussion, in particular the cooperative phases. In individual libraries, with occasional exceptions, there is no division which shows less systematic planning than acquisition. Well-thought-out statements of acquisition policy are rarities.<sup>16</sup> Instead, the inclination is to accept practically any gift offered, to enter upon exchanges merely because they seem to be free, to buy rare books for prestige rather than for use, and to branch out into new fields without a clear understanding of costs, of needs, of materials available, or of how the subjects fit into present holdings.

As a guide to libraries which would greatly benefit from adoption of and adherence to a sound acquisition policy, a thorough analysis of existing statements formulated by such institutions as the Library of Congress, Harvard University, University of Illinois, John Crerar Library, and New York Public Library would be desirable.

Another side of acquisition activity of major importance in the development of collections is financial. Cost studies are needed for books and journals, showing, for example, unit costs, increases in prices of various types of material, and comparative prices over a period of years. Investigations would also be valuable of discounts by dealers and publishers, and of auction house prices. The occasional attempts at cooperative buying by groups of libraries might be examined, with a view to finding reasons for their success or failure.

Other methods of acquisitions should also be studied and evaluated, e.g., such duplicate exchange systems as those operated by the Med-

ical Library Association, Special Libraries Association, and Association of College and Reference Libraries; the employment of a common agent, as in the Association of Research Libraries' Documents Expediting Project; and the stimulation of gifts from foundations and through friends of the library organizations.

One of the oldest and most popular forms of library cooperation is interlibrary loans. By this means, concentrations of wealth in library resources in certain regions and individual institutions have been widely shared with the have-nots. Scholars and graduate students with inadequate local library facilities have thereby been able to carry on research projects otherwise impossible for them.

Nevertheless, the present interlibrary loan system is not without defects and problems. Inevitably, the chief burden of such loans falls on the large libraries. As one instance, the University of Illinois Library loans, in an average year, five times as many volumes as it borrows, and a similar proportion would doubtless hold for other leading university and research libraries. The amount of staff time required by this activity has become a considerable item in the budgets of such institutions. Another factor is the serious wear and tear, or even loss of material sent by mail or express, a deterrent to the loan of rare or irreplaceable works.

Adoption of the code and forms prescribed by the Association of College and Reference Libraries has helped to ameliorate some abuses of the interlibrary loan system and to facilitate the handling of loans.<sup>17</sup> Increasing use of microfilm copies instead of the originals is solving the problem of damaged and lost books, with the further advantage of giving the borrowing library copies that can be retained for its permanent collection.

Realistic and complete studies of the cost of interlibrary loans, both in the lending and borrowing libraries, are needed. If fees are to be assessed, as is being done in a few institutions, what is a reasonable charge? Should more stringent rules be adopted to restrict loans to materials for genuine research purposes? To what extent can photocopies replace loans of original works?

The above discussion indicates some of the wide ramifications of the resources field. Virtually every branch of librarianship is touched by it. If the premise is accepted that books, broadly interpreted, are the librarian's chief business and his reason for being, this is an area that is truly basic, and in which further research not only is needed but can pay high dividends.

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